Ordering number : EN 2745A

Monolithic Linear IC

SANYO No.2745A

LA7222

2-Channel 2-Position AV Switch for VCR / Audio Use

Features

- The LA7222 is a 2-channel 2-position high-performance analog switch having wide application from audio band to video band.

Maximum Ratings at Ta = 25°C

				unit
Maximum Supply Voltage	V_{CC} max		15	V
Allowable Power Dissipation	Pd max	Ta = 65°C	350	mW
Operating Temperature	Topr		–20 to +65	°C
Storage Temperature	Tstg		–55 to +125	°C

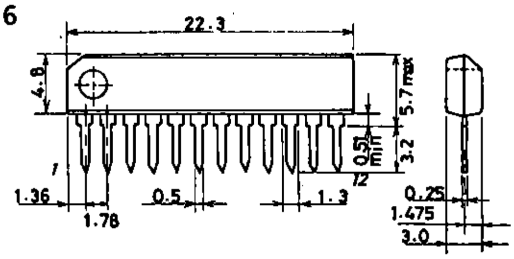
Operating Conditions at Ta = 25°C

			unit
Recommended Supply Voltage	V_{CC}	12	V
Operating Voltage Range	V_{CC} op	8 to 13	V

Operating Characteristics at Ta = 25°C, V_{CC} = 12V

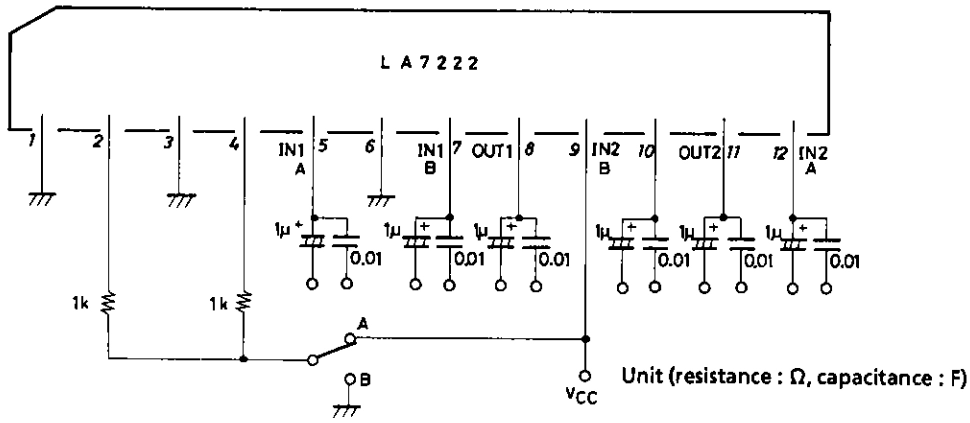
			min	typ	max	unit
Current Dissipation	I_{CC}	No input	12	17	22	mA
Total Harmonic Distortion	THD	Rg = 600Ω, V_{IN} = 4.5Vp-p, f = 1kHz		0.007	0.1	%
Output Noise Voltage	V_{ON}	Rg = 600Ω, DIN AUDIO FILTER (20Hz to 20kHz)		–110	–100	dBs
Crosstalk (ch-1)	CR1	Rg = 50Ω(no input side Rg = 500Ω) V_{IN} = 2Vp-p, f = 3.58MHz	–57	–62		dB
Crosstalk (ch-2)	CR2	Rg = 50Ω(no input side Rg = 500Ω) V_{IN} = 2Vp-p, f = 3.58MHz	–52	–57		dB
Maximum Input Voltage	V_{IN}	Rg = 600Ω, f = 1kHz, THD = 1%	5.0			Vp-p
2nd Harmonic	H_2	Rg = 50Ω, V_{IN} = 4Vp-p, f = 1MHz	–46	–55		dB
3rd Harmonic	H_3	Rg = 50Ω, V_{IN} = 4Vp-p, f = 1MHz	–46	–55		dB
Input Impedance	z_{in}			10		kΩ
Output Impedance	z_o			30	60	Ω
Switch A Input Hold Voltage	V_{CA}	Pin 2, pin 4 DC	3.8		V_{CC}	V
Switch B Input Hold Voltage	V_{CB}	Pin 2, pin 4 DC	0		2.0	V
Output DC Offset Voltage	ΔV_{ODC}	Output voltage difference at the time of changeover from switch A to B, and vice versa	–50	0	+50	mV
Crosstalk between Channels	CRch	Rg = 500Ω, R_L = ∞ Other channel input Rg = 50Ω, V_{IN} = 2Vp-p, f = 3.58MHz	–58	–63		dB

Package Dimensions
(unit : mm)
3116

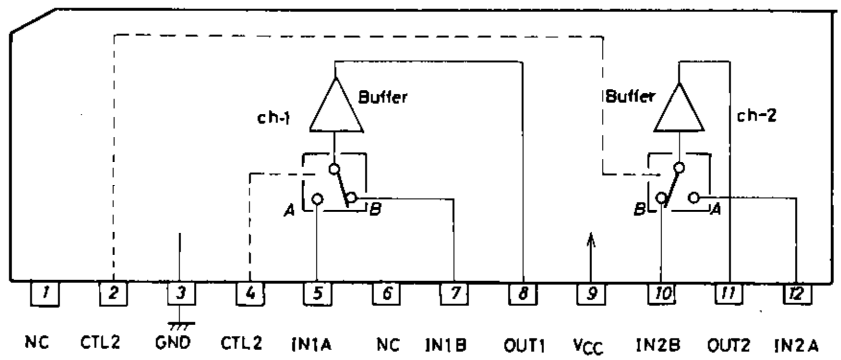


SANYO : SIP12S

Test Circuit

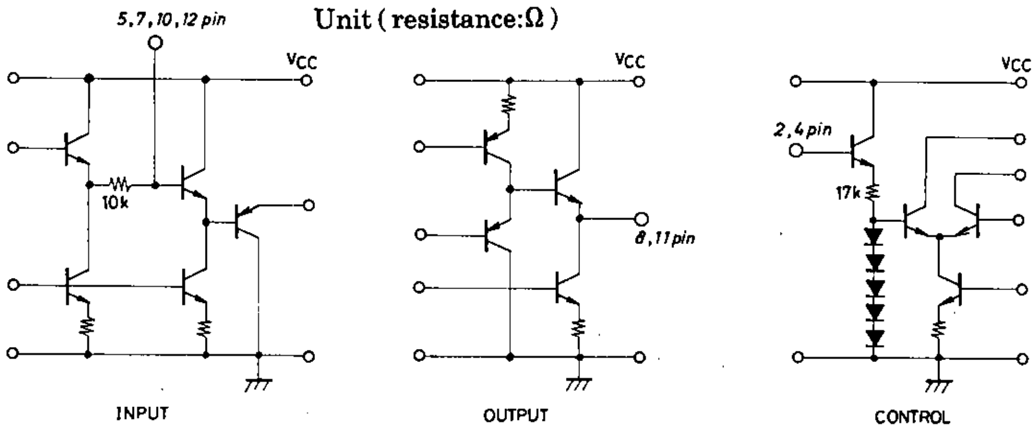


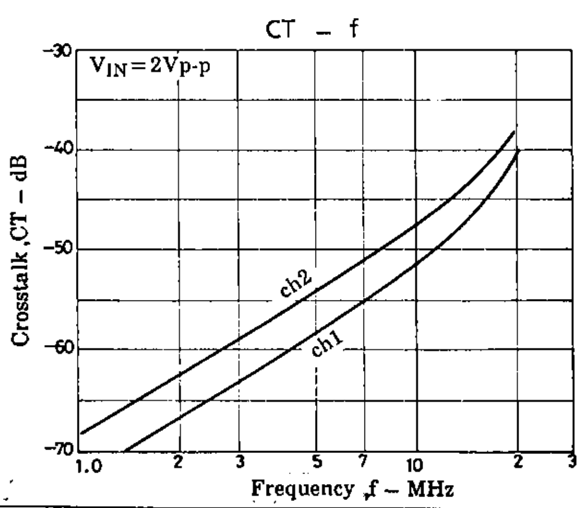
Equivalent Circuit Block Diagram

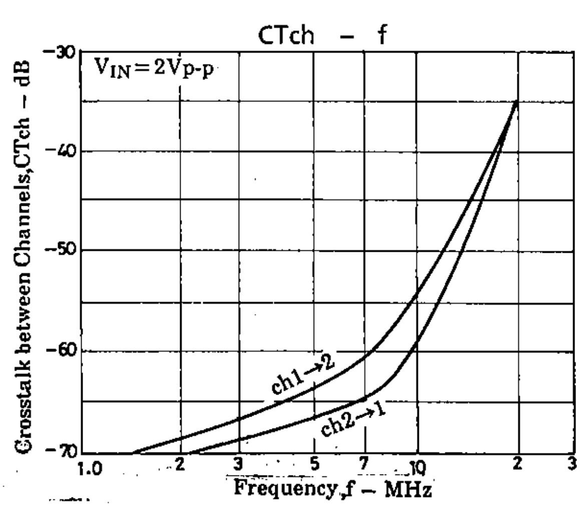


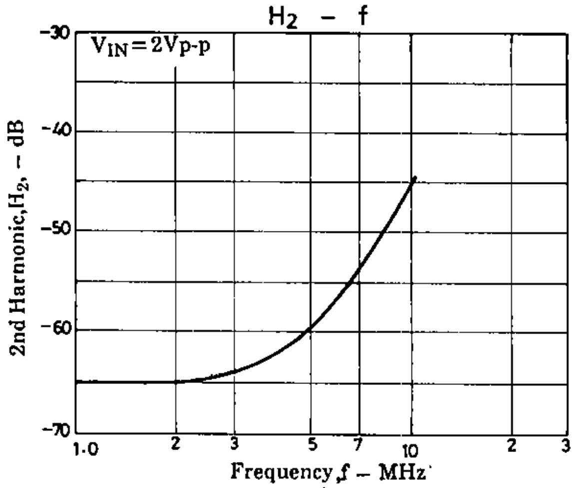
Input/Output Equivalent Circuit

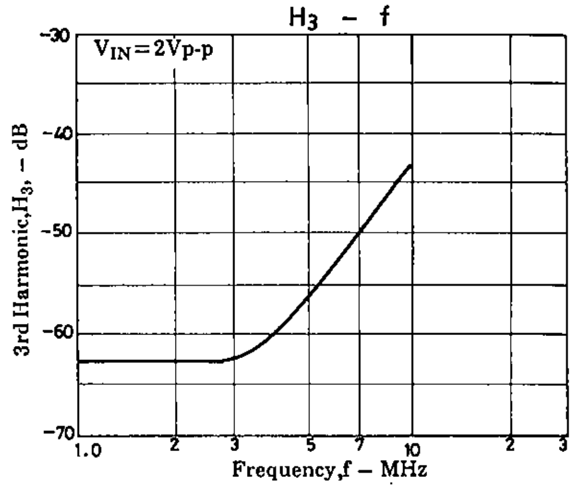
Unit (resistance:Ω)

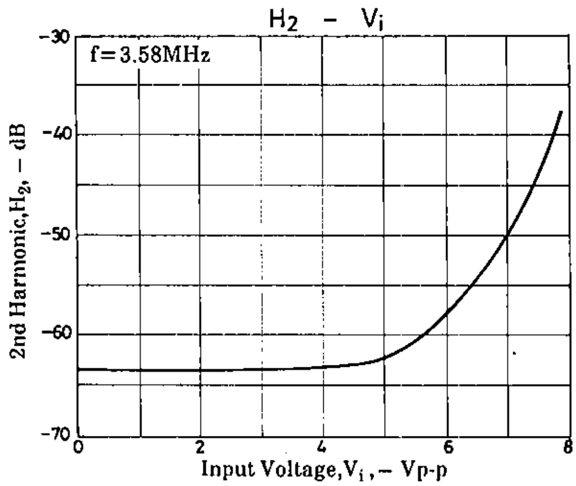


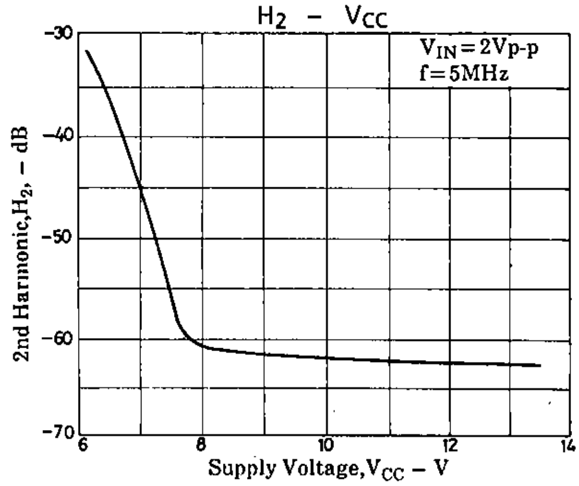


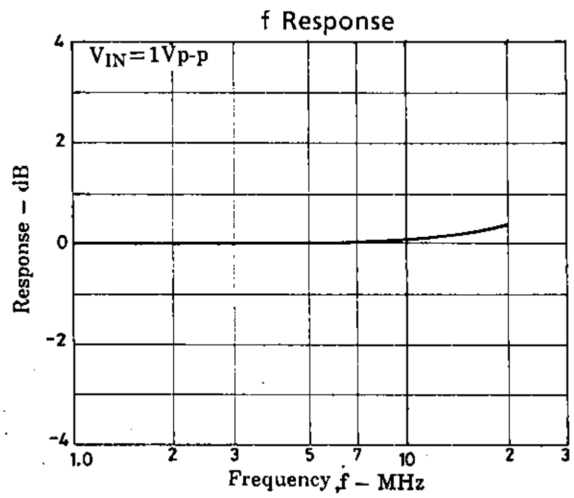



H2 – f
VIN=2Vp-p
2nd Harmonic,H2, – dB
-30
-40
-50
-60
-70
1.0
2
3
5
7
10
2
3
Frequency,f – MHz


H3 – f
VIN=2Vp-p
3rd Harmonic,H3, – dB
-30
-40
-50
-60
-70
1.0
2
3
5
7
10
2
3
Frequency,f – MHz


H2 – Vi
f=3.58MHz
2nd Harmonic,H2, – dB
-30
-40
-50
-60
-70
0
2
4
6
8
Input Voltage,Vi, – Vp-p


H2 – VCC
VIN=2Vp-p
f=5MHz
2nd Harmonic,H2, – dB
-30
-40
-50
-60
-70
6
8
10
12
14
Supply Voltage,VCC – V


f Response
VIN=1Vp-p
Response – dB
4
2
0
-2
-4
1.0
2
3
5
7
10
2
3
Frequency,f – MHz

This catalog provides information as of **December, 1996**. Specifications and information herein are subject to change without notice.